

**PATENT**  
Attorney Docket No. **UM-06617**  
**IDS**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of: Michael D. Uhler

Serial No.: 09/960,454

Filed: 09/21/01

Entitled: **Surface Transfection And Expression  
Procedure**

Group No.: 1636

Examiner: Nguyen, Quang

**INFORMATION DISCLOSURE STATEMENT**

**RECEIVED**

**MAR 08 2004**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**CERTIFICATE OF MAILING UNDER 37 CFR § 1.8(a)**

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to the: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on **March 1, 2004**.

By: 

Mary Ellen Waite

Sir or Madam:

The citations listed below, copies attached, may be material to the examination of the above-identified application, and are therefore submitted in compliance with the duty of disclosure defined in 37 C.F.R. §§ 1.56 and 1.97. The Examiner is requested to make these citations of official record in this application.

The following US patent applications are related to the present application:

- US Application No. 10/002,802 Uhler, et al., Surface Transfection And Expression Procedure; and
- US Application No. 10/123,435 Uhler, et al., Surface Transfection And Expression Procedure.

The following printed publications are referred to in the body of the specification:

- Amundson, et al., Fluorescent cDNA microarray hybridization reveals complexity and heterogeneity of cellular genotoxic stress responses, *Oncogene*, 18(24):3666 (1999);
- Bally, et al., Biological barriers to cellular delivery of lipid-based DNA carriers, *Adv Drug Deliv Rev*, 38(3):291 (1999);
- Baron, et al., Generation of conditional mutants in higher eukaryotes by switching between the expression of two genes, *Proc Natl Acad Sci U S A*, 96(3):1013 (1999);
- Bittner, et al., Data analysis and integration: of steps and arrows, *Nat Genet*, 22(3):213 (1999);
- Boynton and AL, Control of 3T3 cell proliferation by calcium, *In Vitro*, 10(12) (1974);
- Brown and Botstein, Exploring the new world of the genome with DNA microarrays, *Nat Genet*, 21(1 Suppl):33 (1999);
- Brown, et al., Induction of alkaline phosphatase in mouse L cells by overexpression of the catalytic subunit of cAMP-dependent protein kinase, *J Biol Chem*, 265(22):13181 (1990);
- Brunner, et al., Cell cycle dependence of gene transfer by lipoplex, polyplex and recombinant adenovirus, *Gene Ther*, 7(5):401 (2000);
- Cheng, Receptor ligand-facilitated gene transfer: enhancement of liposome-mediated gene transfer and expression by transferrin, *Hum Gene Ther*, 7(3):275 (1996);
- Duggan, et al., Expression profiling using cDNA microarrays, *Nat Genet*, 21(1 Suppl):10 (1999);
- Gill and Sanseau, Rapid in silico cloning of genes using expressed sequence tags (ESTs), *Biotechnol Annu Rev*, 5(25) (2000);
- Graves, Powerful tools for genetic analysis come of age, *Trends Biotechnol*, 17(3):127 (1999);

- Huang, et al., Identification and temporal expression pattern of genes modulated during irreversible growth arrest and terminal differentiation in human melanoma cells, *Oncogene*, 18(23):3546 (1999);
- Iyer, et al., The transcriptional program in the response of human fibroblasts to serum, *Science*, 283(5398):83 (1999);
- Mann, et al., Pressure-mediated oligonucleotide transfection of rat and human cardiovascular tissues, *Proc Natl Acad Sci U S A*, 96(11):6411 (1999);
- Mortimer, et al., Cationic lipid-mediated transfection of cells in culture requires mitotic activity, *Gene Ther*, 6(3):403 (1999);
- Neumann, et al., Fundamentals of electroporative delivery of drugs and genes, *Bioelectrochem Bioenerg*, 48(1):3 (1999);
- Ross, et al., Enhanced reporter gene expression in cells transfected in the presence of DMI-2, an acid nuclease inhibitor, *Gene Ther*, 5(9):1244 (1998);
- Schena, et al., Quantitative monitoring of gene expression patterns with a complementary DNA microarray, *Science*, 270(5235):467 (1995);
- Tseng, et al., Mitosis enhances transgene expression of plasmid delivered by cationic liposomes, *Biochim Biophys Acta*, 1445(1):53 (1999);
- Wagner, et al., DNA-binding transferrin conjugates as functional gene-delivery agents: synthesis by linkage of polylysine or ethidium homodimer to the transferrin carbohydrate moiety, *Bioconjug Chem*, 2(4):226 (1991);
- Watson and Akil, Gene chips and arrays revealed: a primer on their power and their uses, *Biol Psychiatry*, 45(5):533 (1999);
- Young, Biomedical discovery with DNA arrays, *Cell*, 102(1):9 (2000);
- Zenke, et al., Receptor-mediated endocytosis of transferrin-polycation conjugates: an efficient way to introduce DNA into hematopoietic cells, *Proc Natl Acad Sci U S A*, 87(10):3655 (1990);
- Zhu, et al., Cellular gene expression altered by human cytomegalovirus: global monitoring with oligonucleotide arrays, *Proc Natl Acad Sci U S A*, 95(24):14470 (1998); and

- Antonyak, et al., Constitutive activation of c-Jun N-terminal kinase by a mutant epidermal growth factor receptor, *J Biol Chem*, 273(5):2817 (1998);
- Barila, et al., A nuclear tyrosine phosphorylation circuit: c-Jun as an activator and substrate of c-Abl and JNK, *Embo J*, 19(2):273 (2000);
- Collins and Uhler, Cyclic AMP- and cyclic GMP-dependent protein kinases differ in their regulation of cyclic AMP response element-dependent gene transcription, *J Biol Chem*, 274(13):8391 (1999);
- Frodin, et al., A phosphoserine-regulated docking site in the protein kinase RSK2 that recruits and activates PDK1, *Embo J*, 19(12):2924 (2000);
- Frost, et al., Cross-cascade activation of ERKs and ternary complex factors by Rho family proteins, *Embo J*, 16(21):6426 (1997);
- Fuchs, et al., MEKK1/JNK signaling stabilizes and activates p53, *Proc Natl Acad Sci U S A*, 95(18):10541 (1998);
- Gryz and Meakin, Acidic substitution of the activation loop tyrosines in TrkA supports nerve growth factor-independent cell survival and neuronal differentiation, *Oncogene*, 19(3):417 (2000);
- Guan, et al., Interleukin-1beta-induced cyclooxygenase-2 expression requires activation of both c-Jun NH2-terminal kinase and p38 MAPK signal pathways in rat renal mesangial cells, *J Biol Chem*, 273(44):28670 (1998);
- Hansra, et al., Multisite dephosphorylation and desensitization of conventional protein kinase C isotypes, *Biochem J*, 342 ( Pt 2)(337 (1999);
- Huggenvik, et al., Regulation of the human enkephalin promoter by two isoforms of the catalytic subunit of cyclic adenosine 3',5'-monophosphate-dependent protein kinase, *Mol Endocrinol*, 5(7):921 (1991);
- Iglesias and Rozengurt, Protein kinase D activation by deletion of its cysteine-rich motifs, *FEBS Lett*, 454(1-2):53 (1999);
- Kawai, et al., Mouse smad8 phosphorylation downstream of BMP receptors ALK-2, ALK-3, and ALK-6 induces its association with Smad4 and transcriptional activity, *Biochem Biophys Res Commun*, 271(3):682 (2000);

- Kohn, et al., Expression of a constitutively active Akt Ser/Thr kinase in 3T3-L1 adipocytes stimulates glucose uptake and glucose transporter 4 translocation, J Biol Chem, 271(49):31372 (1996);
- Komeima, et al., Inhibition of neuronal nitric-oxide synthase by calcium/calmodulin-dependent protein kinase IIalpha through Ser847 phosphorylation in NG108-15 neuronal cells, J Biol Chem, 275(36):28139 (2000);
- Kuno-Murata, et al., Augmentation of thyroid hormone receptor-mediated transcription by Ca<sup>2+</sup>/calmodulin-dependent protein kinase type IV, Endocrinology, 141(6):2275 (2000);
- Leever, et al., Requirement for Ras in Raf activation is overcome by targeting Raf to the plasma membrane, Nature, 369(6479):411 (1994);
- Ling, et al., NF-kappaB-inducing kinase activates IKK-alpha by phosphorylation of Ser-176, Proc Natl Acad Sci U S A, 95(7):3792 (1998);
- Novak, et al., Cell adhesion and the integrin-linked kinase regulate the LEF-1 and beta-catenin signaling pathways, Proc Natl Acad Sci U S A, 95(8):4374 (1998);
- Ohteki, et al., Negative regulation of T cell proliferation and interleukin 2 production by the serine threonine kinase GSK-3, J Exp Med, 192(1):99 (2000);
- Raingeaud, et al., MKK3- and MKK6-regulated gene expression is mediated by the p38 mitogen-activated protein kinase signal transduction pathway, Mol Cell Biol, 16(3):1247 (1996);
- Robinson, et al., A constitutively active and nuclear form of the MAP kinase ERK2 is sufficient for neurite outgrowth and cell transformation, Curr Biol, 8(21):1141 (1998);
- Takeda, et al., Apoptosis signal-regulating kinase 1 (ASK1) induces neuronal differentiation and survival of PC12 cells, J Biol Chem, 275(13):9805 (2000);
- Wang, et al., Activation of the hematopoietic progenitor kinase-1 (HPK1)-dependent, stress-activated c-Jun N-terminal kinase (JNK) pathway by

- transforming growth factor beta (TGF-beta)-activated kinase (TAK1), a kinase mediator of TGF beta signal transduction, J Biol Chem, 272(36):22771 (1997);
- Zang, et al., Association between v-Src and protein kinase C delta in v-Src-transformed fibroblasts, J Biol Chem, 272(20):13275 (1997); and
  - Zimmermann, et al., PrKX is a novel catalytic subunit of the cAMP-dependent protein kinase regulated by the regulatory subunit type I, J Biol Chem, 274(9):5370 (1999).
  - Abravaya, et al., Heat shock-induced interactions of heat shock transcription factor and the human hsp70 promoter examined by in vivo footprinting, Mol Cell Biol, 11(1):586 (1991);
  - Altmann, et al., Transcriptional activation by CTF proteins is mediated by a bipartite low-proline domain, Proc Natl Acad Sci U S A, 91(9):3901 (1994);
  - Benbrook and Jones, Different binding specificities and transactivation of variant CRE's by CREB complexes, Nucleic Acids Res, 22(8):1463 (1994);
  - Blackwell, et al., Sequence-specific DNA binding by the c-Myc protein, Science, 250(4984):1149 (1990);
  - Boccaccio, et al., Induction of epithelial tubules by growth factor HGF depends on the STAT pathway, Nature, 391(6664):285 (1998);
  - Cao, et al., Identification and characterization of the Egr-1 gene product, a DNA-binding zinc finger protein induced by differentiation and growth signals, Mol Cell Biol, 10(5):1931 (1990);
  - Fisch, et al., An AP1-binding site in the c-fos gene can mediate induction by epidermal growth factor and 12-O-tetradecanoyl phorbol-13-acetate, Mol Cell Biol, 9(3):1327 (1989);
  - Hale and Braithwaite, Identification of an upstream region of the mouse p53 promoter critical for transcriptional expression, Nucleic Acids Res, 23(4):663 (1995);
  - Hariharan, et al., Delta, a transcription factor that binds to downstream elements in several polymerase II promoters, is a functionally versatile zinc finger protein, Proc Natl Acad Sci U S A, 88(21):9799 (1991);

- Hiscott, et al., Triggering the interferon response: the role of IRF-3 transcription factor, *J Interferon Cytokine Res*, 19(1):1 (1999);
- Kamps, et al., A new homeobox gene contributes the DNA binding domain of the t(1;19) translocation protein in pre-B ALL, *Cell*, 60(4):547 (1990);
- Lam, et al., Cell-cycle regulation of human B-myb transcription, *Gene*, 160(2):277 (1995);
- Lernbecher, et al., Distinct NF-kappa B/Rel transcription factors are responsible for tissue-specific and inducible gene activation, *Nature*, 365(6448):767 (1993);
- Northrop, et al., Characterization of the nuclear and cytoplasmic components of the lymphoid-specific nuclear factor of activated T cells (NF-AT) complex, *J Biol Chem*, 268(4):2917 (1993);
- Oh and Im, The p53 mutation which abrogates trans-activation while maintaining its growth-suppression activity, *Mol Cells*, 10(4):386 (2000);
- Pani, et al., The restricted promoter activity of the liver transcription factor hepatocyte nuclear factor 3 beta involves a cell-specific factor and positive autoactivation, *Mol Cell Biol*, 12(2):552 (1992);
- Robbins, et al., Negative regulation of human c-fos expression by the retinoblastoma gene product, *Nature*, 346(6285):668 (1990);
- Treisman, The SRE: a growth factor responsive transcriptional regulator, *Semin Cancer Biol*, 1(1):47 (1990);
- Uchijima, et al., Tax proteins of human T-cell leukemia virus type 1 and 2 induce expression of the gene encoding erythroid-potentiating activity (tissue inhibitor of metalloproteinases-1, TIMP-1), *J Biol Chem*, 269(21):14946 (1994); and
- Vinson, et al., Dimerization specificity of the leucine zipper-containing bZIP motif on DNA binding: prediction and rational design, *Genes Dev*, 7(6):1047 (1993).
- Ziauddin, J and Sabatini, DM (2001) Microarrays of cells expressing defined cDNAs. *Nature* 411: 107-110.

- US 4683195 (issued 07/28/87) Mullis, et al., Process for amplifying, detecting, and/or-cloning nucleic acid sequences;
- US 4683202 (issued 07/28/87) Mullis, et al., Process for amplifying nucleic acid sequences;
- US 4965188 (issued 10/23/90) Mullis, et al., Process for amplifying, detecting, and/or cloning nucleic acid sequences using a thermostable enzyme;
- US 5352605 (issued 10/04/94) Fraley, et al., Chimeric genes for transforming plant cells using viral promoters;
- US 5584807 (issued 12/17/96) McCabe, Gas driven gene delivery instrument;
- US 5618682 (issued 04/08/97) Scheirer, Bioluminescence measurement system;
- US 5674713 (issued 10/17/97) McElroy, et al., DNA sequences encoding coleoptera luciferase activity;
- US 5976796 (issued 11/02/99) Szalay, et al., Construction and expression of renilla luciferase and green fluorescent protein fusion genes;
- US 6074859 (issued 09/13/00) Hirokawa, et al., Mutant-type bioluminescent protein, and process for producing the mutant-type bioluminescent protein; and
- WO 9514098 (published 05/26/95) Cui Decai (CN); Chimeric Regulatory Regions and Gene Cassettes for Expression of Genes in Plants.
- WO 01/20015 (published 3/22/01) (Application No. PCT/US00/25457)

Whitehead Institute for Biomedical Research, "Reverse Transfection Method."

The following additional publications are listed in the International Search Report of the corresponding PCT application No: PCT/US01/50426, a copy of which is also included:

- Wagner, et al. (1992) Influenza virus hemagglutinin HA-2 N-terminal fusogenic peptides augment gene transfer by transferrin-polylysine-DNA complexes: toward a synthetic virus-like gene-transfer vehicle, Proc Natl Acad Sci U S A, 89(17):7934;
- Wagner, et al. (1990) Transferrin-polycation conjugates as carriers for DNA uptake into cells, Proc Natl Acad Sci U S A, 87(9):3410.



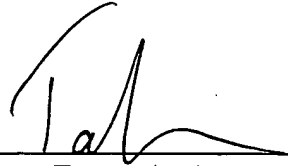
- US5837533 (issued 11/17/98) American Home Products (US), Complexes comprising a nucleic acid bound to a cationic polyamine having an endosome disruption agent;
- WO 99/51773 (published 10/14/99) Phylos Inc (US), Addressable Protein Arrays.
- WO 00/05339 (published 02/02/00) Canham Leigh Trevor (GB); SECR Defence (GB), Transferring Materials into Cells Using Porous Silicon; and
- EP0900849 (published 03/10/99) Shanghia Cancer Inst (CN), Receptor-Mediated Gene Transfer System for Targeting Tumor Gene Therapy;

The following references may be material to the examination of the above-identified application:

- U.S. 5,654,185, Palsson, "Methods, Compositions, and Apparatus for Cell Transfection."
- U.S. 5,804,431, Palsson, "Methods, Compositions, and Apparatus for Cell Transfection."
- U.S. 5,811,274, Palsson, "Methods, Compositions, and Apparatus for Cell Transfection."
- U.S. 5,965,352 (issued 10/12/99) Stoughton and Friend, "Methods for identifying pathways of drug action."
- U.S. 5,998,136 (issued 12/07/99) Kamb, "Selection systems and methods for identifying genes and gene products involved in cell proliferation."
- U.S. 6,060,240 (issued 05/09/00) Kamb and Feldhaus, "Methods for measuring relative amounts of nucleic acids in a complex mixture and retrieval of specific sequences therefrom."
- WO 98/53103 (published 11/26/98) Chenchik et al., "Nucleic acid arrays."
- WO 99/55886 (published 11/04/99) Genova Pharmaceuticals Corp (US/US), "Function-based gene discovery."
- WO 99/58664 (published 11/18/99) McKernan et al., "Solid phase technique for selectively isolating nucleic acids."

This Information Disclosure Statement under 37 C.F.R. §§ 1.56 and 1.97 is not to be construed as a representation that a search has been made, that additional information material to the examination of this application does not exist, or that any one or more of these citations constitutes prior art.

Dated: March 1, 2004



Tanya A. Arenson  
Reg. No. 47,391  
MEDLEN & CARROLL  
101 Howard Street, Suite 350  
San Francisco, CA 94015  
608/218-6900



PATENT  
Attorney Docket No. UM-06617

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Michael D. Uhler  
Serial No.: 09/960,454  
Filed: 09/21/2001  
Entitled: Surface Transfection And Expression Procedure

Group No.: 1636  
Examiner: Nguyen

INFORMATION DISCLOSURE STATEMENT TRANSMITTAL RECEIVED  
MAR 08 2004

Assistant Commissioner for Patents  
Washington, D.C. 20231

CERTIFICATE OF MAILING UNDER 37 CFR § 1.8(a)

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to the: Assistant Commissioner for Patents, Washington, D.C. 20231, on March 1, 2004.

By:

Mary Ellen Waite

Sir or Madam:

Enclosed please find an Information Disclosure Statement and Form PTO-1449, including copies of the references contained thereon, for filing in the U.S. Patent and Trademark Office.

A check for \$180.00 is also enclosed pursuant to 37 C.F.R. § 1.17(p) for filing this Information Disclosure Statement after three months as set forth in C.F.R. § 1.97(c).

The Commssioner is hereby authorized to charge any additional fee or credit overpayment to our Deposit Account No. 08-1290. An originally executed duplicate of this transmittal is enclosed for this purpose.

Dated: March 1, 2004

Tanya A. Arenson  
Registration No. 47,391

03/05/2004 SSANDARA 00000020 09960454  
02 FC:1806 180.00 OP

MEDLEN & CARROLL, LLP  
101 Howard Street, Suite 305  
San Francisco, California 94105  
608/218-6900

FORM PTO-1449  
(Modified)U.S. Department of Commerce  
Patent and Trademark Office

Attorney Docket No.: UM-06617

Serial No.: 09/960,454

## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use Initials Unless If Necessary)

(37 CFR § 1.98(b))

Applicant: Michael D. Uhler

Filing Date: 09/21/2001

Group Art. Unit:

## U.S. PATENT DOCUMENTS

Examiner Initials	Cite No.	Serial / Patent Number	Issue Date	Applicant / Patentee	Class	Subclass	Filing Date
	1	4,683,195	07/28/87	Mullis <i>et al.</i>	435	6	02/07/86
	2	4,683,202	07/28/87	Mullis <i>et al.</i>	435	91	10/25/85
	3	4,965,188	10/23/90	Mullis <i>et al.</i>	435	6	06/17/87
	4	5,352,605	10/04/94	Fraley <i>et al.</i>	435	240.4	10/28/93
	5	5,584,807	12/17/96	McCabe	604	71	01/20/95
	6	5,618,682	04/08/97	Scheirer	435	8	02/08/94
	7	5,674,713	10/17/97	McElroy <i>et al.</i>	435	69.7	06/02/95
	8	5,976,796	11/02/99	Szalay <i>et al.</i>	435	6	12/23/96
	9	6,074,859	09/13/00	Hirokawa <i>et al.</i>	435	189	07/08/98
	10	5,837,533	11/17/98	Boutin	435	320.1	07/28/94
	11	5,654,185	08/05/97	Palsson	435	235.1	06/07/97
	12	5,804,431	07/08/98	Palsson	435	235.1	03/13/97
	13	5,811,274	09/22/98	Palsson	435	172.2	12/09/94
	14	5,965,352	10/12/99	Stoughton	435	172.1	12/09/94
	15	5,998,136	12/7/99	Kamb	435	6	08/19/96
	16	6,060,240	5/9/00	Kamb <i>et al.</i>	435	6	12/13/96
	17	10/002,802		Uhler <i>et al.</i>			
	18	10/123,435		Uhler <i>et al.</i>			

## FOREIGN PATENTS OR PUBLISHED FOREIGN PATENT APPLICATIONS

		Document Number	Publication Date	Country / Patent Office	Class	Subclass	Translation	
							Yes	No
✓	19	WO 95/14098	5/26/95	PCT				
	20	WO 01/20015	3/22/01	PCT				
✓	21	WO 99/51773	10/14/99	PCT				
✓	22	WO 00/05339	02/02/00	PCT				
✓	23	0900849	3/10/99	EP				
✓	24	WO 98/53103	11/26/98	PCT				
✓	25	WO 99/55886	11/04/99	PCT				
✓	26	WO 99/58664	11/18/99	PCT				

Examiner:

Date Considered:

EXAMINER:

Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FORM PTO-1449  
(Modified)U.S. Department of Commerce  
Patent and Trademark Office

Attorney Docket No.: UM-06617

Serial No.: 09/960,454

**INFORMATION DISCLOSURE STATEMENT BY APPLICANT**  
(Several Sheets May Be Necessary)

Applicant: Michael D. Uhler

(37 CFR § 1.98(b))

Filing Date: 09/21/2001

Group Art Unit:

**OTHER DOCUMENTS (Including Author, Title, Date, Relevant Pages, Place of Publication)**

27	Amundson, et al., Fluorescent cDNA microarray hybridization reveals complexity and heterogeneity of cellular genotoxic stress responses, <i>Oncogene</i> , 18(24):3666 (1999)
28	Bally, et al., Biological barriers to cellular delivery of lipid-based DNA carriers, <i>Adv Drug Deliv Rev</i> , 38(3):291 (1999);
29	Baron, et al., Generation of conditional mutants in higher eukaryotes by switching between the expression of two genes, <i>Proc Natl Acad Sci U S A</i> , 96(3):1013 (1999);
30	Bittner, et al., Data analysis and integration: of steps and arrows, <i>Nat Genet</i> , 22(3):213 (1999);
31	Boynton and AL, Control of 3T3 cell proliferation by calcium, <i>In Vitro</i> , 10(12 (1974);
32	Brown and Botstein, Exploring the new world of the genome with DNA microarrays, <i>Nat Genet</i> , 21(1 Suppl):33 (1999);
33	Brown, et al., Induction of alkaline phosphatase in mouse L cells by overexpression of the catalytic subunit of cAMP-dependent protein kinase, <i>J Biol Chem</i> , 265(22):13181 (1990);
34	Brunner, et al., Cell cycle dependence of gene transfer by lipoplex, polyplex and recombinant adenovirus, <i>Gene Ther</i> , 7(5):401 (2000);
35	Cheng, Receptor ligand-facilitated gene transfer: enhancement of liposome-mediated gene transfer and expression by transferrin, <i>Hum Gene Ther</i> , 7(3):275 (1996);
36	Duggan, et al., Expression profiling using cDNA microarrays, <i>Nat Genet</i> , 21(1 Suppl):10 (1999);
37	Gill and Sanseau, Rapid in silico cloning of genes using expressed sequence tags (ESTs), <i>Biotechnol Annu Rev</i> , 5(25 (2000);
38	Graves, Powerful tools for genetic analysis come of age, <i>Trends Biotechnol</i> , 17(3):127 (1999)
39	Huang, et al., Identification and temporal expression pattern of genes modulated during irreversible growth arrest and terminal differentiation in human melanoma cells, <i>Oncogene</i> , 18(23):3546 (1999)
40	Iyer, et al., The transcriptional program in the response of human fibroblasts to serum, <i>Science</i> , 283(5398):83 (1999);
41	Mann, et al., Pressure-mediated oligonucleotide transfection of rat and human cardiovascular tissues, <i>Proc Natl Acad Sci U S A</i> , 96(11):6411 (1999);
42	Mortimer, et al., Cationic lipid-mediated transfection of cells in culture requires mitotic activity, <i>Gene Ther</i> , 6(3):403 (1999);
432	Neumann, et al., Fundamentals of electroporative delivery of drugs and genes, <i>Bioelectrochem Bioenerg</i> , 48(1):3 (1999);
44	Ross, et al., Enhanced reporter gene expression in cells transfected in the presence of DMI-2, an acid nuclease inhibitor, <i>Gene Ther</i> , 5(9):1244 (1998);
45	Schena, et al., Quantitative monitoring of gene expression patterns with a complementary DNA microarray, <i>Science</i> , 270(5235):467 (1995);
46	Tseng, et al., Mitosis enhances transgene expression of plasmid delivered by cationic liposomes, <i>Biochim Biophys Acta</i> , 1445(1):53 (1999);
47	Wagner, et al., DNA-binding transferrin conjugates as functional gene-delivery agents: synthesis by linkage of polylysine or ethidium homodimer to the transferrin carbohydrate moiety, <i>Bioconjug Chem</i> , 2(4):226 (1991);
48	Watson and Akil, Gene chips and arrays revealed: a primer on their power and their uses, <i>Biol Psychiatry</i> , 45(5):533 (1999);
49	Young, Biomedical discovery with DNA arrays, <i>Cell</i> , 102(1):9 (2000)
50	Zenke, et al., Receptor-mediated endocytosis of transferrin-polycation conjugates: an efficient way to introduce DNA into hematopoietic cells, <i>Proc Natl Acad Sci U S A</i> , 87(10):3655 (1990);
51	Zhu, et al., Cellular gene expression altered by human cytomegalovirus: global monitoring with oligonucleotide arrays, <i>Proc Natl Acad Sci U S A</i> , 95(24):14470 (1998)
52	Antonyak, et al., Constitutive activation of c-Jun N-terminal kinase by a mutant epidermal growth factor receptor, <i>J Biol Chem</i> , 273(5):2817 (1998);
53	Barila, et al., A nuclear tyrosine phosphorylation circuit: c-Jun as an activator and substrate of c-Abl and JNK, <i>Embo J</i> , 19(2):273 (2000);

Examiner:

Date Considered:

**RECEIVED****EXAMINER:**

Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

**MAR 08 2004**

FORM PTO-1449 (Modified)		U.S. Department of Commerce Patent and Trademark Office		Attorney Docket No.: UM-06617	Serial No.: 09/960,454
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> (Use of PTO Form 1449 is necessary)				Applicant: Michael D. Uhler	
				Filing Date: 09/21/2001	Group Art Unit:
(37 CFR § 1.98(b))					
OTHER DOCUMENTS (Including Author, Title, Date, Relevant Pages, Place of Publication)					
	54	Collins and Uhler, Cyclic AMP- and cyclic GMP-dependent protein kinases differ in their regulation of cyclic AMP response element-dependent gene transcription, J Biol Chem, 274(13):8391 (1999);			
	55	Frodin, et al., A phosphoserine-regulated docking site in the protein kinase RSK2 that recruits and activates PDK1, Embo J, 19(12):2924 (2000);			
	56	Frost, et al., Cross-cascade activation of ERKs and ternary complex factors by Rho family proteins, Embo J, 16(21):6426 (1997);			
	57	Fuchs, et al., MEKK1/JNK signaling stabilizes and activates p53, Proc Natl Acad Sci U S A, 95(18):10541 (1998);			
	58	Gryz and Meakin, Acidic substitution of the activation loop tyrosines in TrkA supports nerve growth factor-independent cell survival and neuronal differentiation, Oncogene, 19(3):417 (2000);			
	59	Guan, et al., Interleukin-1beta-induced cyclooxygenase-2 expression requires activation of both c-Jun NH2-terminal kinase and p38 MAPK signal pathways in rat renal mesangial cells, J Biol Chem, 273(44):28670 (1998);			
	60	Hansra, et al., Multisite dephosphorylation and desensitization of conventional protein kinase C isotypes, Biochem J, 342 ( Pt 2):337 (1999);			
	61	Huggenvik, et al., Regulation of the human enkephalin promoter by two isoforms of the catalytic subunit of cyclic adenosine 3',5'-monophosphate-dependent protein kinase, Mol Endocrinol, 5(7):921 (1991);			
	62	Iglesias and Rozengurt, Protein kinase D activation by deletion of its cysteine-rich motifs, FEBS Lett, 454(1-2):53 (1999);			
	63	Kawai, et al., Mouse smad8 phosphorylation downstream of BMP receptors ALK-2, ALK-3, and ALK-6 induces its association with Smad4 and transcriptional activity, Biochem Biophys Res Commun, 271(3):682 (2000);			
	64	Kohn, et al., Expression of a constitutively active Akt Ser/Thr kinase in 3T3-L1 adipocytes stimulates glucose uptake and glucose transporter 4 translocation, J Biol Chem, 271(49):31372 (1996);			
	65	Komeima, et al., Inhibition of neuronal nitric-oxide synthase by calcium/ calmodulin-dependent protein kinase IIalpha through Ser847 phosphorylation in NG108-15 neuronal cells, J Biol Chem, 275(36):28139 (2000);			
	66	Kuno-Murata, et al., Augmentation of thyroid hormone receptor-mediated transcription by Ca2+/calmodulin-dependent protein kinase type IV, Endocrinology, 141(6):2275 (2000);			
	67	Leevers, et al., Requirement for Ras in Raf activation is overcome by targeting Raf to the plasma membrane, Nature, 369(6479):411 (1994);			
	68	Ling, et al., NF-kappaB-inducing kinase activates IKK-alpha by phosphorylation of Ser-176, Proc Natl Acad Sci U S A, 95(7):3792 (1998);			
	69	Novak, et al., Cell adhesion and the integrin-linked kinase regulate the LEF-1 and beta-catenin signaling pathways, Proc Natl Acad Sci U S A, 95(8):4374 (1998);			
	70	Ohteki, et al., Negative regulation of T cell proliferation and interleukin 2 production by the serine threonine kinase GSK-3, J Exp Med, 192(1):99 (2000);			
	71	Raingeaud, et al., MKK3- and MKK6-regulated gene expression is mediated by the p38 mitogen-activated protein kinase signal transduction pathway, Mol Cell Biol, 16(3):1247 (1996);			
	72	Robinson, et al., A constitutively active and nuclear form of the MAP kinase ERK2 is sufficient for neurite outgrowth and cell transformation, Curr Biol, 8(21):1141 (1998);			
	73	Takeda, et al., Apoptosis signal-regulating kinase 1 (ASK1) induces neuronal differentiation and survival of PC12 cells, J Biol Chem, 275(13):9805 (2000);			
	74	Wang, et al., Activation of the hematopoietic progenitor kinase-1 (HPK1)-dependent, stress-activated c-Jun N-terminal kinase (JNK) pathway by transforming growth factor beta (TGF-beta)-activated kinase (TAK1), a kinase mediator of TGF beta signal transduction, J Biol Chem, 272(36):22771 (1997);			
	75	Zang, et al., Association between v-Src and protein kinase C delta in v-Src-transformed fibroblasts, J Biol Chem, 272(20):13275 (1997)			
	76	Zimmermann, et al., PrKX is a novel catalytic subunit of the cAMP-dependent protein kinase regulated by the regulatory subunit type I, J Biol Chem, 274(9):5370 (1999).			
Examiner:			Date Considered:		
<b>EXAMINER:</b> Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.					

RECEIVED

MAR 08 2004

RECEIVED  
MAR 0 8 2004

FORM PTO-1449 (Modified)		U.S. Department of Commerce Patent and Trademark Office		Filing Date: 09/21/2001		Group Art Unit:	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT		Applicant: Michael D. Uhler		Serial No.: 09/960,454			
OTHER DOCUMENTS (Including Author, Title, Date, Relevant Pages, Place of Publication)							
77	Abbraya, et al., Heat shock-induced interactions of heat shock transcription factor and the human hsp70 promoter examined by in vivo footprinting, Mol Cell Biol, 11(1):586 (1991);						
78	Altman, et al., Transcriptional activation by CTF proteins is mediated by a bipartite low-proline domain, Proc Natl Acad Sci U S A, 91(9):3901 (1994);						
79	Benbrook and Jones, Different binding specificities and transactivation of variant CREs by CREB complexes, Nucleic Acids Res, 22(8):1463 (1994);						
80	Blackwell, et al., Sequence-specific DNA binding by the c-Myc protein, Science, 250(4984):1149 (1990)						
81	Boccaccio, et al., Induction of epithelial tubules by growth factor HGF depends on the STAT pathway, Nature, 391(6664):285 (1998);						
82	Cao, et al., Identification and characterization of the Egr-1 gene product, a DNA-binding zinc finger protein induced by differentiation and growth signals, Mol Cell Biol, 10(5):1931 (1990);						
83	Fisch, et al., An API-binding site in the c-fos gene can mediate induction by epidermal growth factor and 12-O-tetradecanoyl phorbol-13-acetate, Mol Cell Biol, 9(3):1327 (1989);						
84	Hale and Brathwaite, Identification of an upstream region of the mouse p53 promoter critical for transcriptional expression, Nucleic Acids Res, 23(4):663 (1995);						
85	Hanharan, et al., Delta, a transcription factor that binds to downstream elements in several polymerase II promoters, is a functionally versatile zinc finger protein, Proc Natl Acad Sci U S A, 88(21):9799 (1991)						
86	Hiscott, et al., Triggering the interferon response: the role of IRF-3 transcription factor, J Interferon Cytokine Res, 19(1):1 (1999);						
87	Kamps, et al., A new homeobox gene contributes the DNA binding domain of the I(1;19) translocation protein in pre-B ALL, Cell, 60(4):547 (1990);						
88	Lam, et al., Cell-cycle regulation of human B-myb transcription, Gene, 160(2):277 (1995);						
89	Lembecke, et al., Distinct NF-kappa B/Rel transcription factors are responsible for tissue-specific and inducible gene activation, Nature, 365(6448):767 (1993);						
90	Northrop, et al., Characterization of the nuclear and cytoplasmic components of the lymphoid-specific nuclear factor of activated T cells (NF-AT) complex, J Biol Chem, 268(4):2917 (1993);						
91	Oh and Im, The p53 mutation which abrogates trans-activation while maintaining its growth-suppression activity, Mol Cells, 10(4):386 (2000);						
92	Pan, et al., The restricted promoter activity of the liver transcription factor hepatocyte nuclear factor 3 beta involves a cell-specific factor and positive autoactivation, Mol Cell Biol, 12(2):552 (1992)						
93	Robbins, et al., Negative regulation of human c-fos expression by the retinoblastoma gene product, Nature, 346(6285):668 (1990);						
94	Treisman, The SRE: a growth factor responsive transcriptional regulator, Semin Cancer Biol, 1(1):47 (1990);						
95	Uchijima, et al., Tax proteins of human T-cell leukemia virus type 1 and 2 induce expression of the gene encoding erythroid-potentiating activity (tissue inhibitor of metalloproteinases-1, TIMP-1), J Biol Chem, 269(21):14946 (1994);						
96	Vinson, et al., Dimerization specificity of the leucine zipper-containing bZIP motif on DNA binding: prediction and rational design, Genes Dev, 7(6):1047 (1993).						
97	Ziauddin, J and Sabatini, DM (2001) Microarrays of cells expressing defined cDNAs. Nature 411: 107-110.						
98	Wagner, et al. (1992) Influenza virus hemagglutinin HA-2-N-terminal fusogenic peptides augment gene transfer by transfectin-polylysine-DNA complexes: toward a synthetic virus-like gene-transfer vehicle, Proc Natl Acad Sci U S A, 89(17):7934						
99	Wagner, et al. (1990) Transfectin-polycation conjugates as carriers for DNA uptake into cells, Proc Natl Acad Sci U S A, 87(9):3410.						
Examiner:		Date Considered:					
EXAMINER: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.							

